

**REGULATION 8
ORGANIC COMPOUNDS
RULE 44
MARINE ~~VESSEL~~ ~~LOADING~~ ~~TERMINAL~~ ~~OPERATIONS~~**

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(Adopted January 4, 1989)

8-44-100 GENERAL

- 8-44-101 Description:** The purpose of this Rule is to limit ~~emissions of precursor total~~ organic compounds emissions into the atmosphere from the loading of organic liquid into marine tank vessels (including lightering), ~~or the loading into marine tank vessels with prior cargo of organic liquid, at marine terminals ballasting, and housekeeping activities from associated with marine loading operations.~~
- 8-44-110 Exemption, De Minimis Loading Events:** Sections 8-44-301 through 305 of this Rule shall not apply to loading events of less than 150 cubic meters (1,000 barrels) that result in less than 15 pounds of organic compound emissions as long as the requirements of Section 8-44-505 are met.
- 8-44-111 Exemption, Marine Vessel Fueling:** Sections 8-44-301 through 305 of this Rule shall not apply to the direct loading of organic liquids ~~associated with the~~ for fueling (bunkering) of marine vessels.
- 8-44-112 Exemption, Lightering:** ~~This Rule shall not apply to the transfer of organic liquids from one marine vessel to another marine vessel.~~
- 8-44-113 Delayed Compliance, Limited Trade Vessel:** ~~Until July 1, 1992, sections 8-44-301 through 304 of this Rule shall not apply to the loading of organic liquids into vessels making infrequent visits.~~
- 8-44-114 Delayed Compliance, Small Terminals:** ~~Until July 1, 1992, sections 8-44-301 through 304 of this Rule shall not apply to small terminals.~~
- 8-44-115 Limited Exemption, Equipment Maintenance:** Until December 31, 2004, Section 8-44-304 shall only apply to the loading of gasoline, gasoline blending stocks, aviation gas and aviation fuel (JP-4 type) and crude oil.

8-44-200 DEFINITIONS

- 8-44-201 Marine Terminal:** Any facility or structure constructed to load or unload organic liquid bulk cargo into marine tank vessels.
- 8-44-202 Marine Vessel:** Any tugboat, tanker, freighter, passenger ship, barge or other boat, ship or watercraft ~~(as defined in Section 39037.1 of the California Health and Safety Code)~~ except those used primarily for recreation.
- 8-44-203 Tank Vessel:** Any vessel or storage tank which is specially constructed or converted to carry liquid bulk cargo in tanks.
- 8-44-204 Organic Liquid:** ~~For Until December 31, 2004~~ for the purpose of this Rule, organic liquid is defined as all gasoline, gasoline blending stocks, aviation gas and aviation fuel (JP-4 type) and crude oil. Effective January 1, 2005, organic liquid means, any organic compound that exists as a liquid at under actual conditions of storage or loading.
- 8-44-205 Emission Control ~~Equipment~~ System:** Any equipment, machinery, apparatus, ~~practice~~ or device used to recover or reduce emissions of organic vapors from escaping into the atmosphere.
- 8-44-206 Organic Compound, Precursor:** Any organic compound as defined in Regulation 1, Section 233 excepting the non-precursor organic compounds in Regulation 1-234.
- 8-44-207 Loading Event:** An incident or occurrence beginning with the connecting of marine terminal storage tanks to a tank vessel by means of piping or hoses, the transferring of organic liquid cargo from the storage tank into the tank vessel (including lightering) or the transferring of any liquid into a tank vessel which previously contained organic liquid and ending with the disconnecting of the pipes or hoses. In addition, potential emissions resulting from the venting of organic compounds in Bay Area District Waters prior to, during, or after a loading event are included in that loading event.

- 8-44-208 Leak Free:** A liquid leak of less than four drops per minute.
- 8-44-209 Gas Tight:** ~~A condition that exists when the concentration of total organic compounds measured above background, measured 1 centimeter or less from the leak, expressed as methane and measured using EPA Reference Method 21, does not exceed the standard. A condition that exists when the concentration of precursor organic compounds, measured 1 centimeter from any source, does not exceed 10,000 ppm (expressed as methane) above background.~~
- 8-44-210 Crude Oil:** A naturally occurring mixture consisting predominantly of hydrocarbons and/or sulfur, nitrogen and oxygen derivatives of hydrocarbons which is removed from the earth in a liquid state or is capable of being so removed.
- 8-44-211 Loading of Organic Liquid:** The loading of an organic liquid or the loading into a tank vessel where the prior cargo was an organic liquid.
- 8-44-212 Infrequent Visits:** ~~Not more than two loading events for any tank vessel in the District in any calendar year.~~
- 8-44-213 Small Terminal:** ~~Any marine terminal with a total organic liquid loading of less than 159,000 cubic meters (1,000,000 bbls) in any calendar year after 1985. Any marine terminal that loads more than 159,000 cubic meters (1,000,000 bbls) in any calendar year after 1985 cannot qualify for the small terminal exemption.~~
- 8-44-214 District Waters:** The water bodies within the District's boundaries and the Pacific Ocean area beginning at the intersection of the Pacific Ocean and the Marin-Sonoma County boundary; and proceeding southwesterly to the intersection of the boundary of the California Coastal Waters at a point having the coordinates of 38° North Latitude and 124.5° West Longitude; southeasterly along said boundary of the California Coastal Waters to a point having coordinates of 37° North Latitude and 123.5° West Longitude; and then northeasterly to the intersection of the Pacific Ocean and the San Mateo-Santa Cruz boundary.
- 8-44-215 VolatileTotal Organic Compounds:** Anyll organic compounds of carbon including methane, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate, that would be emitted to the atmosphere.
- 8-44-216 Vapor Collection System:** Any system of piping, pumps and or compressors used to collect organic vapors.
- 8-44-217 Lightering:** The loading of organic liquid into a marine tank vessel from another marine tank vessel.
- 8-44-218 Ballasting:** The loading of water or other liquid into a marine vessel's cargo tank to obtain proper stability.
- 8-44-219 Housekeeping Activity:** Any activity and associated equipment that would cause the release of organic compounds from a tank vessel into the atmosphere. Housekeeping activities include but are not limited to tank washing, gas freeing, purging, tank venting, or storage.
- 8-44-220 Uncontrolledregulated Cargo:** Any cargo loading event not utilizing an emission control system.
- 8-44-221 Marine Loading Equipment:** Equipment associated with the loading of organic liquid into a marine vessel includes but is not limited to connections, hatches, coffer, gauging ports, slop tanks, vents, vapor collection systems, pumps, compressors, and atmospheric pressure relief valves.
- 8-44-300 STANDARDS**
- 8-44-301 Marine Terminal-Loading Limits:** By July 1, 1991, a person shall not load or permit the loading of an organic liquid into a marine tank vessel. All loading events and ballasting within the District waters shall be controlled to the following limits unless Subsection 8-44-301.4 is satisfied.:
- 301.1 Until December 31, 2005, the emissions of precursor organic compounds are limited to 5.7 grams per cubic meter (2 lbs-pounds per 1,000 bblsbarrels) of organic liquid loaded, or
- 301.2 The emissions of precursor organic compounds are reduced at least 95 percent by weight from uncontrolled conditionsEffective January 1, 20056 for

emission control systems utilizing combustion, the total organic compound emissions shall not exceed 1 pound per 1,000 barrels.

301.3 Effective January 1, 2006 for emission control systems not utilizing combustion, the total organic compound emissions shall not exceed 2 pounds per 1,000 barrels.

301.4 Effective January 1, 2006, the total organic compound emissions from uncontrolled cargo loading shall not exceed 2 pounds per 1,000 barrels provided the requirements in section 8-44-405 are met. Additionally, the emissions and shall not exceed 10,000 ppm measured as methane from any vent measured in accordance with section 8-44-604.

8-44-302 **Emission Control Equipment Access on Marine Vessels:** The owner or operator of a marine vessel shall provide the APCO access to the facility and equipment that is subject to this regulation. The emission control equipment shall be designed and operated to collect and process all organic compound emissions from the loading of organic liquids into marine vessels.

8-44-303 **Operating Practice:** Effective January 1, 2006, the loading pressure of the marine tank vessel shall not exceed 80% of the lowest relief valve set pressure. Effective July 1, 1991, all hatches, pressure relief valves, connections, gauging ports and vents associated with the loading of organic liquid into marine vessels at a marine terminal shall be maintained to be leak free and gas tight. The owner or operator of any equipment associated with the loading of organic liquid into tank vessels at a marine terminal shall maintain that equipment to be leak free and gas tight.

8-44-304 **Equipment Maintenance:** Effective July 1, 1991, a Equipment associated with the loading of organic liquid into a marine vessel includes but is not limited to connections, hatches, coffer, gauging ports, slop tanks, vents, pumps, compressors, and atmospheric pressure relief valves. A person shall not load or permit the loading of organic liquid into a marine vessel in District waters unless:

304.1 The owner or operator of the tank vessel loading organic liquid certifies to the terminal that the vessel is leak free, gas tight and in good working order, and Pursuant to Section 8-44-504, all equipment associated with the loading of organic liquid into marine vessels are maintained to be leak free and gas tight.

304.1.1 For pumps, compressors, and atmospheric pressure relief devices gas tight means the concentration does not exceed 500 ppm, measured as methane.

304.1.2 For all other components, gas tight means the concentration does not exceed 100 ppm, measured as methane.

304.2 Loading ceases any time gas or liquid leaks as defined by Section 8-44-208 or 209 are discovered. Loading may continue only after leak(s) have been repaired. The owner or operator shall post or have readily available the certification that the vessel is leak free, gas tight and in good working order as required by United States Coast Guard regulations, and,

304.3 Loading ceases any time gas or liquid leaks as defined by Section 8-44-208, or 209, or 304.1 are discovered. Loading may continue only after all gas and liquid leak(s) have been repaired.

8-44-305 **Ozone Excess Day Prohibition:** Effective July 1, 1989, and thereafter Until December 31, 2005, loading of any organic liquid or uncontrolled cargo into any marine tank vessel shall not be allowed on any day that the District predicts an excess of any Federal Ambient Air Quality Standard for ozone unless the emissions of precursor organic compounds are reduced at least 95% by weight from uncontrolled conditions, or they are limited to 5.7 grams per cubic meter (2 1/2 pounds per 1,000 barrels).

8-44-306 **Housekeeping Activity:** The total organic emissions from any housekeeping activity shall not exceed 10,000 ppm measured as methane from any vent measured in accordance with section 8-44-604.

8-44-400 ADMINISTRATIVE REQUIREMENTS

- 8-44-401 Compliance Schedule:** Any owner or operator ~~of a marine terminal~~ subject to Sections 8-44-301 through 305 of this Rule that requires the installation or modification of emission control equipment shall comply with the following increments of progress:
- 401.1 ~~By July 1, 1989~~ Within 180 days after the adoption of this rule, submit to the APCO a control plan which describes the steps and schedule that will be taken to achieve compliance with the requirements of this Rule. This plan must be updated annually until final compliance with Section 8-44-301 is achieved.
 - 401.2 ~~By January 1, 1990~~ Within 360 days after the adoption of this rule, submit to the APCO an application for an authority to construct any shore side equipment required to comply with the requirements of Section 8-44-301. Failure to meet any provision of the plans submitted in accordance with Section 8-44-401 is considered a violation.
- 8-44-402 Safety/Emergency Operations:** Nothing in this rule shall be construed as to:
- 402.1 Require any act or omission that would be in violation of any regulation or other requirement of the United States Coast Guard or;
 - 402.2 Prevent any act or omission that is necessary to secure the safety of a vessel or for saving life at sea.
- 8-44-403 Reporting:** A person responsible for a marine tank vessel intending to engage in loading, ballasting, or performing housekeeping activities shall provide written notice to the APCO at least 48 hours prior to the event with the following requirements:
- 403.1 The name of the marine vessel;
 - 403.2 The location of the intended operation;
 - 403.3 The description of the operation(s);
 - 403.4 The type and amount of cargo(s) to be loaded;
 - 403.5 The date and estimated start time of arrival; and
 - 403.6 The estimated duration of the event.
- 8-44-404 Demonstration of Compliance, Marine Terminals:** Every twelve months from the adoption of this rule, the owner or operator of a marine terminal shall conduct a District-approved source test to demonstrate compliance with Section 8-44-301 using test methods prescribed in Section 8-44-601 on all emission control systems. Results shall be submitted to the District within 45 days of the test.
- 8-44-405 Uncontrolled Cargos Determination:** Pursuant to Section 8-44-301.4, Cargoscargos shall be demonstrated prior to a loading event in accordance with section 8-44-601 not to exceed the standard in section 8-44-301.4.

8-44-500 MONITORING AND RECORDS

- 8-44-501 Record Keeping:** ~~AEffective February 1, 1989, a person subject to Sections 8-44-110, 111, 113, 114, 115, 301 through 305 of this Rule shall maintain operating records regarding each loading event. The records shall be maintained at the terminal for at least two years and shall be made available to the APCO upon request. The records shall be summarized and submitted on a monthly basis by organic liquid type.~~ The records shall include but are not limited to:
- 501.1 The type of event, name, and location ~~of the marine terminal~~ at which the ~~loading loading~~ event occurred.
 - 501.2 The company responsible for the operation of the ~~marine terminal~~ loading event.
 - 501.3 The date(s) and times at which the tank vessel arrived and departed from the ~~marine terminal~~ location of the loading event.
 - 501.4 The -name, registry of the vessel loaded and legal owner of the tank vessel.
 - 501.5 The prior cargo carried by that tank vessel.
 - 501.6 The type and amount of organic liquid cargo loaded into the tank vessel.
 - 501.7 The condition of the tanks prior to being loaded, ~~(i.e.e.g.,~~ cleaned, crude oil washed, gas freed, etc.)

- 501.8 The loading conditions at the time of the event including but not limited to the temperature of the organic liquid as loaded, ambient temperature, usage of an inert gas system, method of control.
- 501.9 The capacity of segregated ballast tankage and the amount of ballast water loaded into unsegregated ballast tanks, including a monthly summary.
- 501.10 The departure and arrival ports or marine terminals for all marine tank vessels participating in a loading event.
- 501.11 The date, time, location and description of any ventings from any tank vessels.

The date, time of discovery and location of any vapor or liquid leaks including the date and time of the repair.

Records shall be maintained for at least two years and shall be made available to the APCO upon request.

8-44-502 Burden of Proof: ~~Persons seeking to demonstrate compliance with~~ A person subject to ~~Subsection Section~~ 8-44-301.4 must monitor and or maintain adequate test data to demonstrate that applicable cargos are being controlled and provide verification opportunities to the APCO on request. Records shall be maintained for at least two years and shall be made available to the APCO upon request. LANGUAGE TO BE DETERMINED

8-44-503 Monitoring and Records for Marine Tank Vessel Loading Pressure: Effective January 1, 20056, a person subject to Section 8-44-301 shall monitor the pressure of the marine tank vessel to comply with requirements of Section 8-44-303. The date, vessel name, lowest relief valve set pressure, and highest loading pressure of the loading event shall be recorded. Records shall be maintained for at least two years and shall be made available to the APCO upon request.

8-44-504 Monitoring and Records for Leak Free and Gas Tight: A person subject to Section 8-44-301 shall monitor the equipment to demonstrate leak free and gas tight prior to loading more than 20% of the cargo pursuant to Section 8-44-304.1. Any readings that exceed the requirements shall be recorded with the date, time of discovery, location of the leak, corrective action, and status of the loading event. Records shall be maintained for at least two years and shall be made available to the APCO upon request.

8-44-505 Monitoring and Records for DeMinimus Loading Events: A person seeking to the exemption in Section 8-44-110 shall record the concentration TOC of the headspace, the type of cargo loaded, and the amount of cargo loaded. Records shall be maintained for at least two years and shall be made available to the APCO upon request.

8-44-600 MANUAL OF PROCEDURES

8-44-601 Determination of Emissions: Emissions of precursor organic compounds as specified in Section 8-44-301.1 shall be measured as prescribed by one of the following methods in the Manual of Procedures, Volume IV, ST-34. This test shall be conducted so that the emissions from at least the last 50 percent of the total organic liquid loaded are included.

601.1 BAAQMD Manual of Procedures, Volume IV, ST-34.

601.2 EPA Method 25.

601.3 EPA Method 25A, or

601.4 An alternate method approved by the APCO and EPA.

8-44-602 Efficiency and Mass Emission Determination (Vapor Processing System): The means by which mass emission rates of vapor processing systems are determined is set forth in 1) the Manual of Procedures, Volume IV, ST-34, 2) EPA Method 25, or 3) EPA Method 25A.

8-44-603 Leak Tests And Gas TightConcentration Determinations: The measurement of precursor total organic compounds from equipment to determine whether they are leak free and gas tight and emission concentrations shall be in accordance with the provisions contained in EPA reference methodMethod 21.

8-44-604 Vent Gas Concentration Determination: The measurement of total organic compounds from vents shall be made after the first 20 percent of the load has been completed for 15 consecutive minutes and in accordance with the provisions contained in EPA Method 21.